

Rural energy consumption and land degradation in a post-Soviet setting – an example from the west Pamir mountains in Tajikistan

Tobias Hoeck,
Roman Droux,
Thomas Breu,
Hans Hurni,
Daniel Maselli

Centre for Development and Environment (CDE), University of Bern, Steigerhubelstrasse 3,
3008 Bern, Switzerland

E-mail (Hoeck): tobias.hoeck@cde.unibe.ch

Energy for Sustainable Development, Volume XI No. 1 March 2007

ABSTRACT

The sustainable use of energy resources in semi-arid rural mountain areas is a common but still unresolved problem, often resulting in environmental degradation. In a post-Soviet setting the identification of possible solutions poses specific challenges. This study aimed at

- (1) investigating the current energy supply and consumption patterns at household and village levels in the western Tajik Pamirs,
- (2) analysing the implications for land degradation and natural resource management, and
- (3) proposing recommendations for sustainable energy use, taking into consideration the peculiarities of the Soviet heritage.

For this, a participatory and multi-level stakeholder approach was applied. Data was collected through comparative in-depth case-studies at household level and through participatory land degradation assessments.

The study revealed that the close interlinkage between local energy resource use and land degradation leads to a paradoxical situation in present energy consumption. The scarcer the local energy resource base, the higher the overall energy consumption at household level appears to be. It can further be concluded that since 1991 energy consumption patterns in the Tajik Pamirs have become comparable to patterns in semi-arid rural mountain regions of developing countries. Like many countries in the South, the Tajik Pamirs suffer from chronic energy scarcity, unsatisfactory supply of modern energy carriers and unsustainable use of local biomass fuels, leading to land degradation. This calls for a reassessment of the energy policy orientation for Tajikistan.